

MONTHLY WEATHER REVIEW.

(GENERAL WEATHER SERVICE OF THE UNITED STATES.)

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WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
DIVISION OF TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

INTRODUCTION.

This REVIEW presents a general summary of the meteorological data collected by the Signal Service during the month of July, 1882.

The more prominent meteorological features of the month have been:

1st: The unusually high pressure, which has been above the normal in all sections of the country, except on the eastern slope of the Rocky mountains. The pressure ranged from normal in the New England states, to 0.08 inch above the normal in the Gulf states, and on the Pacific coast the same conditions prevailed, the pressure being from 0.02 to 0.08 inch above the normal.

2d: The deficiency in temperature, which has been below the normal throughout the country, except in New England and in the middle and south Pacific coast regions, where it was slightly above. In all other districts, the temperature ranged from 0.3 below the normal in Tennessee, to 6°.0 below the normal in the upper Mississippi valley.

The month has been particularly marked by the absence of storms, only six well-defined storm-centres occurring within the limits of the Signal Service stations during the month, and these did not exhibit any special energy. Local storms and tornadoes were comparatively few in number and were not very severe.

The rainfall has been below the average, except in that part of the country lying south of the thirty-sixth parallel of latitude.

Severe drought has prevailed in the New England states, and has to some extent injured the crops in that part of the country. In all other sections, the crops are almost uniformly reported to be making favorable progress. A large portion of the wheat crop has been harvested; the yield having proved above the average. The condition of the corn crop is reported to be promising, but owing to the cold weather during the planting season, it is from two to three weeks late.

The cotton region reports are continued, and for purposes of comparison, the tables of temperature and rainfall are given for the three months preceding July. The condition of the cotton crop is in general satisfactory.

Insects have been numerous in New England and caused severe ravages in crops, especially in Connecticut and Massachusetts.

The chart showing the limits of icebergs in the North Atlan-

tic ocean is continued, but the reports of vessels encountering ice are less numerous than for the two preceding months.

That part of the REVIEW referring to International Meteorology presents the general weather conditions which prevailed over the northern hemisphere during the month of May, 1880, the most marked feature being the prevalence of high pressures over central Europe during that month. Chart v. exhibits the tracks of barometric minima for August, 1880, traced from simultaneous observations taken at 7:35 a. m., Washington mean time, and will be found interesting as showing the tracks of three West Indian hurricanes, and of four typhoons occurring in the China sea.

In the preparation of this REVIEW the following data received up to August 20th, have been used, viz.: the regular tri-daily weather charts, containing the data of simultaneous observations taken at one hundred and thirty-six Signal Service stations and twelve Canadian stations, as telegraphed to this office; one hundred and eight-two monthly journals and one hundred and seventy-three monthly means from the former, and twelve monthly means from the latter; one hundred and eighty-seven monthly registers from voluntary observers; fifty-four monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; Marine Reports through the co-operation of the New York Herald Weather Service; abstracts of Ships' Logs, furnished by the publishers of "The New York Maritime Register"; monthly reports from the local weather services of Kansas, Nebraska, and Missouri, and of the Central Pacific railway company; trustworthy newspaper extracts; special reports.

BAROMETRIC PRESSURE.

The mean barometric pressure for the month of July over the United States and Canada is shown by the isobarometric lines, in black, on chart ii. The area of lowest mean pressure covers Arizona, portions of Colorado, New Mexico and Utah, where the mean pressure ranges from 29.79 to 29.87 inches. The pressure gradually increases to the north, east, and west of this region, and is greatest over the south Atlantic states, Florida, the east Gulf states, and the north Pacific coast region. Compared with the previous month, the pressure is everywhere higher. In the northern slope the increase ranges from 0.06 to 0.12 inch; in the upper Mississippi and Missouri valleys, from 0.03 to 0.14 inch; in the lake region and Ohio valley, from 0.04 to 0.13 inch; in New England and the middle Atlantic states, from 0.09 to 0.13 inch; in the Gulf states, from 0.04 to 0.09 inch, and on the Pacific coast, from 0.03 to 0.08 inch.